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DOCUMENTARY

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from the book "THE VOLGA: GREAT RUSSIAN RIVER", by I I Fyedyenko, published by the Ministry of Education of the Russian Soviet Federated Socialist Republic, Moscow & Leningrad, 1946. The excerpts deal with the Volga's navigational development and capabilities and are taken from the book's seven chapters which are entitled as follows:

- 1. At the Foot of the Valdayskaya Vozvyshennost.
- 2. The Water Regime.
- 3. The Wealth of the Volga.
- 4. The Volga, A Route.
- 5. The Volga in the History of Our Country.
- 6. The Volga in People's Art and Literature.
- 7. The Greatest River Route of Europe.

Bulk of the excerpts are from (hapter 7.

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I. I. Fyedyenko

OUR NATIVE COUNTRY (NASHA RODINA)

THE VOLGA: GREAT RUSSIAN RIVER

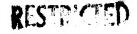
(VOLGA: VELIKAYA RUSSKAYA REKA)

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Moscow & Leningrad, 1946



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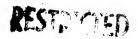
THE WEALTH OF THE VOLGA

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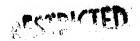
The MOSKVA-VOLGA KANAL (KANAL IMENI MOSKVY)

RYBINSKOYE MORE

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This book also contains numerous pictures of views along the VOLGA. Most of them are taken from the banks overlooking the river, but some are views from the river toward the bank.



AT THE FOOT OF THE VALDAYSKAYA VOZVYSHENNOST'

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This chapter contains a poetic description of the path the VOLGA takes to the sea from the region and swamps and moss at its source, located at the foot of the moraine ridge known as VALDAYSKAYA VOZVYSHENNOST. A summary of how the river valley was formed in the Ice Age is also included. It mentions how the lakes in this area (STERZH, VSELUG, PENO and VOLGO) unite and become a single great water basin in the spring season. The combined area of this basin is more than 170 square kilometers. OZERO SELIGER is over 90 kilometers (56 miles) long and 37 kilometers (23 miles) wide. It consists of 24 reservoirs connected by canals. There are many peninsulas and about 160 islands, and the lake is rich in fish.

THE WATER REGIME

This chapter begins with a summary of the importance of VALDAYSKAYA VOZVYSHENNOST' as the central watershed of the Russian plains, how it has fascilitated portages in the past, etc. One-quarter of the population of the USSR lives in the VOLGA Basin, which occupies 1,500,000 square kilometers - - almost twice the size of England and France combined. In the spring at high water, the VOLGA, at some places, rises 10-12 meters (32.5-39 feet) higher than summer measurements. In the stretch from STALINGRAD to ASTRAKHAN! in the spring the river sometimes reaches a width of 40 kilometers (25 miles). The course and banks of the VOLGA, lumber floated down in the spring, etc., are discussed in various aspects in general terms, but there are no figures given. It is stated that the depth of the river depends on the height of the bank: the higher and steeper the bank, the deeper the river, and a low bank is almost always accompanied by shoals and a generally shallow depth. The greatest depth of the VOLGA is discovered below the mouth of the KAMA. Many towns on the right bank of the VOLGA experience floods, and "the place where VASIL'SURSK once stood has now become the channel of the VOLGA. More than once CHERNYY YAR (below STALINGRAD), flooded by the VOLGA, has been moved westward, but the river reaches it and again floods the banks".

THE WEALTH OF THE VOLGA

This chapter covers the beauties of the VOLGA at various seasons, but gets into no more scientific detail than to say navigation begins in April when the ice breaks up. The wind is northernly during this season. Trees of forests and orchards, meadows, and the kinds of fish in the waters of the VOLGA are mentioned briefly. During STALIN's Five-Year Flans there have grown up on the banks of the VOLGA a great many Soviet industries: fish canneries (the last word scientifically) near the mouth, factories producing industrial equipment, food products, etc.

"The shores of the VOLGA are rich in limestone and gypsous deposits in the region of KAZAN' and SYZHAN'. Farther down at VOL'SK is a great

source of raw materials for the cement industry. The VOL'SK (VOL'SKIYE) cement factories are the largest in the Union.

"The salt lakes of EL'TON and BASKUNCHAK are world-renowned. They contain over 4,000,000 tons of salt".

"In recent years, in the region of ZHIGULI-SYZRAN!, rich oil deposits have been discovered, and a new oil base has been set up between the VOLGA and the URAL at VTOROYE BAKU (BAKU II).

"Great gas deposits have been discovered recently (during the War for the Fatherland) in the SARATOV and STALINGRAD area and in the ASTRAKHAN¹ region. In the ELSHANKA-KUHDYUM region near SARATOV such great gas deposits have been discovered that already a gas line, 800 kilometers (497 miles) in PENZENSKAYA, TAMBOVSKAYA, RYAZANSKAYA, and MOSKOVSKAYA oblasts. It will increase MOSKVA¹s gas supply five-fold".

"Geological exploration has discovered in RAYON SARATOV mineral deposits of the ESSENTUKI type. SARATOV mineral waters are already being used by medical institutions".

All farming along the VOLGA has been collectivized.

THE VOLGA, A ROUTE

This chapter begins with a history of navigation on the VOLGA and the invention of the steamship. Now about half of all cargo transported by water in the USSR goes via the VOLGA and the cargo turnover is increasing every year. Two-decker motor ships of 1200 indicated horse-power ply VOLGA waters and powerful tugs tow oil barges. In connection with this great activity has grown up "the BOL'SHAYA VOLGA project. BOL'SHAYA VOLGA — the new VOLGA, the economy of which will be basically reorganized. According to this project the water route MOSKVA-RYBINSK-GOR'KI-ASTRAKHAN' is to have a depth of not less than 2.6 meters (8.45 feet). The old MARIINSKAYA system, which connects the VOLGA with the BALTIC, will similarly be improved".

"The building of the UGLICH and RYBINSK hydro-junctions (gidrouzel) - (gidrouzel), which enter into the make-up of the hydraulic engineering construction of STALIN's great plan for the reorganization of the VOLGA Basin, has already been completed".

"The building of the greatest construction in the world - - two KUYBYSHEV water power stations with a combined capacity of up to 3.5 million kilowatts - - will provide irrigation of arid regions on the left bank of the VOLGA".

THE VOLGA IN THE HISTORY OF OUR COUNTRY

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This chapter is a review of the history connected with the VOLGA from ancient times, including the uprisings of RAZIN and FUGACHEV, the Revolution, World War II, etc.

THE VOLGA IN PEOPLE'S ART AND LITERATURE

This chapter explains why the VOLGA has for centuries been "mother" and "nurse" to the Russian people, and gives examples of how they have described her beauty and expressed their love for her.

THE GREATEST RIVER ROUTE OF EUROPE

This last chapter concerns "the greatest river route in the world" a distance of 3,142 kilometers (1,948 miles) from MOSKVA to ASTRAKHAN!. This route begins at KHIMKINSKIY river-station, the newest in MOSKVA. The station building looks like a granite and marble palace. The first part of the route is via the MOSKVA-VOLGA KANAL (KANAL IMENI MOSKVY); the rest follows the VOLGA.

"In the course of the first and second Five-Year Plans, old water routes were improved and new ones created: the DNEPR (DNEIPER) dams and locks at ZAPOROZH'E, which provided a through water route from KIYEV to KHERSON, the WHITE Sea-BALTIC Canal or KANAL IMENI STALIN, and the MOSKVA-VOLGA KANAL". Work on the latter was begun in 1931.

The MOSKVA-VOIGA KANAL was built in less than five years. It took 7 million tons of concrete and 6 million tons of dirt were removed. It is 128 kilometers (79.5 miles) long, of which less than 20 kilometers (12.5 miles) follow previously existing waterways. Petroleum barges with a displacement of 18,000 tons use this route from ASTRAKHAN' to MOSKVA: also "VOIGA dreadnaughts" - large passenger motor and steamships - pass through freely. DMITROV, about half-way on the canal from MOSKVA, has become a great water-transportation center. Historical details about this ancient town are given.

"The route from MOSKVA via the canal ends at VOLZHSKIY (VOLGA) hydrojunction, which consists of a number of structures - - dams, earthen and concrete, a single-chamber lock and a hydroelectric station".

"From the outer port, which is decorated with two 25-meter (81 foot) monuments to V. I. LENIN and I. V. STALIN, ships come from the capital by two routes: some via Locks No. 1 down the VOLGA to RYBINSK, GOR'KI, ASTRAKHAN', etc; others, to KAMA and MOLOTOV....Across MOSKOVSKOYE MORE ships follow a third route up the VOLGA to KALININ".

"MOSKOVSKOYE MORE is the largest of the water reservoirs of the canal with an area of 377 square kilometers....On windy days there are high waves

on this reservoir". From MOSKOVSKOYE MORE on the way to KALININ is the interesting new town of KONAKOVO - - a "child" of the Canal. Here is located the KALININ Delf-China factory. From KONAKOVO to KALININ the banks appear generally the same as they have previously.

Sandbanks in the upper VOLGA, which once limited navigation, have been removed. Not a trace remains of the well-known sandbar near KALININ, known as "CHERNAYA GRYAZ! (BLACK MUD)", on which ships used to be grounded frequently. There follows a summary of historical events and people connected with KALININ (formerly TVER!).

"The MOSKVA-ASTRAKHAN! water route does not include KALININ. From the pier at BOL'SHAYA VOLGA, ships going to RYBINSK, GOR'KI and ASTRAKHAN! pass through Locks No. 1 down the VOLGA.... The first station beyond BOL'SHAYA VOLGA is the provincial town of KIMRY in KALININ OBLAST'.... In our times KIMRY is the center of an extensive shoe-manufacturing region".

"Beyond KALYAZIN begins the UGLICH VODOKHRANILISHCHE (Reservoir) with an area of 221 square kilometers. In the distance is outlined the electric station, and beyond it, a steel re-inforced concrete dam...."

In UGLICH, on a high bank on down the VOLGA, the kremlin or fortress is located near the steamship wharf. In the fortress is an ancient castle and near the castle is an old church which is painted purple and is easily distinguished from the rest of the buildings of the town. It is surrounded by green trees. A creek (called GREKHOV) flows through the suburbs behind the town grove. (Similar details with references to buildings, etc., in some of the other towns described in the text have been omitted in this summary.) Until 1936, the VOLGA was barely navigable to here and there were no railroads. In that year was begun "the construction of the hydrojunction station - - a project for power and for transportation..."

"Not far below UGLICH begins RYBINSKOYE MORE - - a reservoir half the size of ONEZHSKOYE OZERO (Lake ONEGA). Over 4700 square kilometers were flooded to create this reservoir.... It is 22 times larger than MOSKOVSKOYE MORE. The supply of water from RYBINSKOYE Reservoir supplies depths of not less than 2.5 meters (8.125 feet) for all navigation from RYBINSK to ASTRA-KHAN'....

"The RYBINSK hydro-junction consists of two independent junctions ——
the VOLGA and the SHEKSNA. The VOLGA transportation junction consists of a
concrete and an earthen dam and two-pair locks. The principal structure of
the SHEKSNA junction is the water power station. An earthen dam, tightly
closing the mouth of the SHEKSNA, directs its water into RYBINSKOYE MORE....

"Ships pass from RYBINSK into the MOLOGA, the SHEKSNA and the VOLGA, and back to RYBINSK through locks". At present RYBINSK wharf is 12 kilometers (7.5 miles) long and is well mechanized. RYBINSK is one of the largest VOLGA ports. There follows more about the history of RYBINSK, its growth and its significance. Then general information is given about the province and the towns of YAROSLAVL' and KOSTROMA, present and past.

From RYBINSK the VOLCA turns to the southeast. The low banks are covered with a green carpet of meadows and brush, and low hills alternate with valleys. Halfway from RYBINSK to YAROSLAVL' is the town of TUTAYEV (formerly ROMANOVO-BORISOGLEBSK). This area is noted for the YAROSLAVL-type cows, for sheep and truck-gardening.

Beyond YAROSLAVL the banks of the VOLGA are low. Near the village of DIYEVO-GORODISHCHE on the VOLGA is the village of GRESHNEVO, renamed NEKRASOVO. On down the VOLGA, near KOSTROMA, are a number of potato-molasses factories which get their potatoes from the collective farms in this area which is low and cut by swamps and lakes. Where REKA KOSTROMA meets the VOLGA on the left bank of the VOLGA is located the old city of KOSTROMA. At the very mouth of the river rise the jagged rocky walls of IPAT*YEVSKIY monastery. Not far from KOSTROMA is the village of DEREVENKA.

Beyond KOSTROMA both banks become more and more mountainous. On the high wooded hills which a re covered with greenery are large villages, summer homes and rest homes. The regions around YAROSLAVL!, KOSTROMA and IVANOV are rich in textile factories. The city of KINESHMA, surrounded by a number of large textile factories, serves as the VOLGA port for IVANOV.

"Below the mouth of REKA UNZHA, which empties into the VOLGA, at YUR'-YEVETS, is the town of VASILEVO (now CHKALOVSK). From there it is not far to GORODETS...."

At PRAVDINSK, farther down the river below GORODETS, is located one of the largest paper-cellulose combines in the Union. BALAKHNA, near PRAVDINSK, now supplies electric power for a series of provinces along the VOLGA. The BALAKHNA electric power station works on the local fuel - - peat.

It is not far from BALAKHNA to GOR'KI (formerly NIZHNIY-NOVGORD). From the deck of a ship coming from upstream the city can already be seen from SORMOVSKIY factory. "From afar it seems as if the river runs into the bank and the immense GOR'KI amphitheater stands across the VOLGA. This is explained by the fact that the VOLGA makes a sharp bend to the left where the OKA empties into it. The two rivers form a sharp point on which is located the part of the city which is beyond REKA OKA - - KUNAVINO or KANAVINO". There follows a survey of historical, scenic and literary facts.

COR'KI is the largest river port in the Union and is the sixth largest city in the Union. Ships bring a constant stream of many natural resources and building materials to GOR'KI, where they are transferred to railroads. "Beyond GOR'KI the VOLGA becomes wider and deeper, and the banks take on the characteristic features. The right bank is high and mountainous and covered almost everywhere with growths of trees; the left is low and meadowy with a 'poyma' several kilometers wide".

KOZ'MODEM'YANSK is the port on the VOLGA for REKA VETLUGA. General facts about the next few towns are given, including CHEBOKSARY and KAZAN'. KAZAN' is now one of the greatest Soviet industrial centers. When the BOL'SHAYA VOLGA project is completed, the great river will overflow and flood all the area which separates KAZAN' from the VOLGA. (It is now located 8 kilometers (5 miles) from the river). The shallow stream, KAZANKA, which is used by boats only in the spring, will be transformed into a deep Approved For Release 2003/12/04: CIA-RDP30-003/64/02/100060002-2

river. A first-class river port will be built at its mouth and a river passenger station, making railroad connections, will be located near the KAZAN' fortress.

Beyond KAZAN¹ the VOLGA makes a sharp turn to the south. The banks remain somewhat the same: the right in places reaches great heights; the left is, for the most part, low and covered with small brush.

"Beyond KAZAN: near the mouth of the KAMA is the village of ANTONOVKA....
Below here the VOLGA's principal tributary, the KAMA, empties into the VOLGA.
In spring the combined waters of both rivers flood an extensive area in which it is difficult to distinguish the mouth of the KAMA.... Below the mouth of the KAMA on the left bank about & kilometers (5 miles) from the VOLGA.... is the village of USPENSKOYE...."

"Beyond UNDORY, formerly the estate of N. M. YAZYKOV, the right bank becomes steeper and more picturesque. In the distance are seen the outlines of the ULIYANOVSK railway bridge".

"UL'YANOVSK (formerly SIMBIRSK) occupies the narrow ridge between the VOLGA and the SVIYAGA, which flows exactly counter to the VOLGA and empties into it above KAZAN' near SVIYAZHSK".

"Below UL!YANOVSK at the village of NADEYNA USOL!YA begin the ZHIGULEV-SKIYE GORY (ZHIGULI Mountains). About 10 kilometers (6 miles) farther down the river the USA flows into the VOLGA from the SHIGULEVSKIYE GORY, also flowing in the opposite direction to the VOLGA.... Near the mouth of the USA the VOLGA makes a sharp bend to the left and goes on eastward to the foot of the ZHIGULEVSKIYE GORY. Reaching the mouth of REKA SOK at TSAREV KURGAN, the VOLGA again makes a sharp turn to the south and continues in this direction for 30 kilometers (19 miles); at KUYBYSHEV it turns west. Farther down, at the village of PEREVOLOKI, the VOLGA resumes it original direction. The whole length of this curve, known as SAMARSKAYA LUKA (SAMARA Bend), is 150 kilometers (93 miles). The straight route from the town of PEREVOLOKI to the mouth of the USA is only 25 kilometers (15.5 miles). Near the mouth of the USA a cluster of mountain peaks, known as MOLODETSKIY KURGAN, overhang the VOLGA. All the peaks and rocky crags of the ZHIGULEVSKIYE GORY have their own names. To the left of the mouth of the USA is GORA LEPESHKA; to the right, MOLODETSKIY KURGAN. This latter is divided into 3 independent peaks. The lowest is DEV'YA GORA. MOLODETSKIY KURGAN was formed by a shift in the earth's crust...."

Six kilometers (3.8 miles) from MOLODETSKIY KURGAN is YABLONEVYY OVRAG. In this area a great oil field has been discovered and it is becoming a new oil base - - VTOROVO BAKU (BAKU II).

Here, there is a description of the types of timber found near ZHIGULI.

Near the mouth of REKA SOK on the left bank not far from the shore is TSAREV KURGAN. This is a barren, sandy hill standing on a flat plain. Below

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this hill the VOLGA turns southward and enters the narrowest place in this stretch - ZHIGULEVSKIYE VOROTA (ZHIGULI Gates). From there the left bank, as well as the right, is high as far as KUYBYSHEV.

Here are included historical notes about the KUYBYSHEV (formerly SAMARA) area. In KUYBYSHEVSKAYA OBLAST! - - at ZHIGULI and SYZRAN! - - important oil beds have been discovered. Also, excellent wheat is raised here. KUYBY-SHEV is noted for its heavy industries.

"Beyond KUYBYSHEV the VOLGA turns sharply westward, forming the lower part of SAMARSKAYA IUKA. At the village of PECHORSKIY, behind the asphalt factory, the VOLGA crosses under the railway bridge, built in 1880...."
Beyond the bridge is the freight wharf of BATRAKI. It is connected with SYZRAN' by an oil pipe line. "The SYZRAN' oil fields, located near the banks of the VOLGA, were discovered in 1937 by Soviet geologists".

Below SYZRAN! the VOLGA takes a southerly course and soon enters SARATOV-SKAYA OBLAST!. This is a great grain region. The provincial town of VOL'SK is famous for its cement factory. "Near VOL'SK begin the steep ZMIYEVY GORY, which are covered only in a few places with vegetation.

"The right bank, which is high, to SARATOV, carries the names of URDYUM-SKIYE, LYCYYE, and SOKOLOVYYE GORY. During the War for the Fatherland, in the SOKOLOVYYE GORY and on up the course of the VOLGA in the ELSHANKA-KUFDYUM region, as previously stated, were discovered gas deposits". This gas is already in use in SARATOV, for both home and industrial use. SARATOV is now noted for its heavy industries. One of the largest cracking distilleries in the Union is located there. UVEK serves as freight pier for SARATOV. It is located just below the town near the railroad bridge across the VOLGA. At the foot of the UVEK mountain, KALANCHI, are preserved the remains of the earthen wall and stone structures of UVEK, a city of the Golden Horde. Beyond UVEK begin the USH'I GORY which, in places, reach heights of 150 meters (488 feet).

Below NIZHNYAYA BANNOVKA wharf rises UTES STEPHANA RAZINA (a cliff), set off from the neighboring elevations by ravines and gullies. Outwardly itself, it is not distinguishable from the many other cliffs of the right bank.

"Below UTES STEPANA RAZINA stretch the picturesque, steep, many-fissured cliffs known as STOLBICHI. In places great columns rise from the very waters of the VOLGA. Opposite STOLBICHI into the VOLGA empties her last tributary from the left - REKA ERUSLAN, near the mouth of which are located about 20 burial mounds. It is presumed this was an ancient battlefield...."

"Near REKA URAKOVKA, which empties into the VOLGA from the right, is URAKOVA GORA, a beautiful, green mountain which descends to the VOLGA in terraces. REKA KAMYSHINKA empties into the VOLGA at the town of KAMYSHIN".

The important prosposed KANAL VOLGA-DON will be put through below STALINGRAD near the town of KRASNOARMEYSK. Beyond DUBOVKA wharf the first

large arm of the VOLGA separates as REKA AKHTUBA, over 500 kilometers (310 miles) long. It flows near and almost parallel to the left bank of the VOLGA and empties into the CASPIAN Sea at KRASNYY YAR.

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STALINGRAD OBLAST' is noted for its fruit and wheat. From the lumber mills of old TSARITSYN (now the city of STALINGRAD) have grown giant lumber and chemical industries. The KRASNOARMEYSK shipyard, one of the largest in the Union, has been rebuilt. In STALINGRAD the TRAKTORNYY SAVOD (factory) turned out its first 500 caterpillar-tractors and diesel tanks within two years after victory over the Germans at STALINGRAD.

Beyond STALINGRAD the banks of the VOLGA are low and sandy and barely rise above the water. The surrounding dry steppes are overgrown with worm-wood or absynthe and its bitterish smell is wafted out over the VOLGA. In June and August on the lower VOLGA there is usually "sukhovey", or a haze. The haze literally hangs in the air, the temperature is high, and a hot, dry southeasterly wind blows. The grass dies and the earth dries and cracks, and water in wells becomes bitter-salty.

At KRASNOARMEYSK (formerly SAREPTA) the last tributary, the little stream SARPA, empties into the VOLGA. "Below the mouth of the SARPA the VOLGA divides into many branches. Often these branches, known as "eriki", flow together in one great expanse of water. Then the banks cannot even be seen. At flood time, which reaches here toward the end of May or even the first of June, the VOLGA flows in one gigantic, terrible stream as much as 40 kilometers (25 miles) wide". Here fishing is the main industry. In recent years gardens have flourished in the VOLGA-AKHTUBINSKAYA DOLINA (valley). "The VOLGA-AKHTUBINSK 'poyma' extends in a southeasterly direction clear to ASTRAKHAN'. It is a tremendous, meadowy terrace about 15-40 kilometers (9-25 miles) wide and stretches out to a length of 500 kilometers (310 miles). All of it is abundantly irrigated by the spring waters of the VOLGA and covered with very fertile alluvial soil. The 'poyma' and the delta of the VOLGA are known as the Russian NILE. Millions of tons of vegetables are harvested here every year.

"At VLADIMIROVKA the VOLGA flows close to the AKHTUBA. They are separated only by a small island less than one kilometer (.62 mile) wide. From here a branch of the railroad, 55 kilometers (34 miles) long goes to OZERO BASKUNCHAK. It passes through an uninhabited steppe on which there is not a single shrub or tree". The area of the lake is about 100 square kilometers; its bottom is a solid mass of salt, a supply of about four million tons.

"Near ASTRAKHAN', at the village of LEBYAZHYA, BUZAN, an arm of the VOLGA, breaks off to the left and flows to the southeast. It unites with the AKHTUBA and then divides into many branches. This is the beginning of the VOLGA delta, the area of which exceeds 10,000 square kilometers.... All around everything is overgrown with rushes which shelter hundreds of thousands of birds.

"ASTRAKHAN' is located on the left bank of the main waterway of the VOLGA, on an island formed by the BOLDA arm of the river and other small sanals". It is the VENICE of the VOLGA, and is the center of the fish industry of the VOLGA. Here are operated two very large refrigerators,

canneries, wood-working plants which prepare boxes and tare for fish. During the Five-Year Plans the largest fish canning combine in EUROPE was built here. The town has a very large oil tank (or reservoir). BAKU petroleum products are brought here and then distributed over the whole Union,

At the ASTRAKHAN' river-station, the finest on the VOLGA, ends the MOSKVA-ASTRAKHAN' route, but the VOLGA goes on. From ASTRAKHAN' to the road-stead the water route follows the principal arm of the western part of the delta, which has a small depth - - 3 - 4 meters (9-13 feet). Therefore, large tanks cannot enter the VOLGA, but stop in the roadstead where they have to pump the oil over from the ocean-going vessels to other boats which take it to ASTRAKHAN'. There it is again pumped over to river boats.

The river has over 200 branches where it empties into the CASPAIN Sea.